Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
DIVISION OF ENERGY RESOURCES

RENEWABLE ENERGY PORTFOLIO STANDARD

GUIDELINE

ON THE

RPS ELIGIBILITY OF BIOMASS GENERATION UNITS

Pursuant to the Renewable Energy Portfolio Standard Regulation at 225 CMR 14.00

As revised and effective on November 7, 2007

This Guideline[1] provides supplementary information relating to the RPS Regulation at 225 CMR 14.00. It contains information describing the eligibility criteria and procedures by which the Division of Energy Resources ("DOER" or "the Division") shall determine whether an existing or proposed, biomass-fueled, Generation Unit is "low-emission" as mandated by the RPS statute[2] and provided in the RPS Regulation at 225 CMR 14.05(1)(a)6.[3]

This Guideline replaces the original version that was issued and effective upon the date of promulgation of the amended RPS Regulation, October 19, 2007.[4] This Guideline shall continue in force until the date on which it is superseded by a subsequently revised version. The Guideline shall apply to Statement of Qualification Applications that are received and deemed administratively complete by DOER on or after the effective date of the Guideline and before a subsequent revision takes effect.

DOER expects that future revisions will be necessitated by improvements in biomass energy and air pollution control technologies over time. That is the reason for DOER's establishment of the specific RPS eligibility criteria for biomass-fueled Generation Units by means of Guidelines rather than in the RPS Regulation itself. Any revision of this Guideline that modifies eligibility threshold values or criteria (as detailed below) shall become effective on the twenty-four month anniversary of the issuance date of such revision, as provided at 225 CMR 14.05(1)(a)6.a. Each such revision of this Guideline shall apply to Statement of Qualification Applications received and deemed administratively complete by DOER on or after the effective date of such revision and before a subsequent revision takes effect. Revisions that do *not* establish eligibility threshold values or criteria, such as changes in methodology, monitoring, or reporting, shall become effective upon their dates of issuance or on such dates as are specified in the revisions themselves.

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[1] This Guideline, along with guidelines on other topics that DOER may issue from time to time, collectively constitute the *Massachusetts RPS Guidelines*, as "Guidelines" is defined in the RPS Regulation at 225 CMR 14.02.

[2] The RPS statute at M.G.L. Ch. 25A, Section 11F, is available at http://www.mass.gov/legis/laws/mgl/25a-11f.htm.

[3] The RPS Regulation is available at http://www.mass.gov/doer/rps/225cmr.pdf.

[4] This November 7, 2007, version of the Guideline corrects inconsistencies between the October 19, 2007 Guideline and the Regulation promulgated on that date, specifically pertaining to co-firing Eligible Biomass Fuels with ineligible fuels (see pages 4-5). It also corrects internal inconsistencies and adds clarification to Table One. All of these corrections are effective immediately and are not subject to the 24-month delay for emission eligibility criteria provided in the RPS Regulation at 225 CMR 14.05(1)(a)6.a.

Background

In order for a biomass-fueled Generation Unit to qualify as a New Renewable Generation Unit under the RPS Regulation, it must meet the Eligibility Criteria at 225 CMR 14.05(1). Among those criteria is the requirement at 14.05(1)(a)6, that such a Unit use "Low-emission, advanced biomass Power Conversion Technologies using an Eligible Biomass Fuel. . . . subject to the limitations in 225 CMR 14.05." That language is based on identical language in the RPS statute[5] This Guideline expands upon the language of the Regulation, to provide the details by which DOER will evaluate Statement of Qualification Applications for biomass-fueled Units to meet the "low emission" criteria as New Renewable Generation Units under the RPS Regulation. As such, the criteria and procedures described herein are intended to replace the need for Advisory Rulings, for which the revised RPS Regulation promulgated on October 19, 2007, no longer provides.

RPS Low-Emission Criteria

To qualify as a New Renewable Generation Unit under the RPS Regulation, a biomass Generation Unit must be deemed by DOER to be one that uses a "low-emissions" technology; that is, a technology that results in the Unit being characterized as having low emissions of pollutants. The statute does not specify which pollutants must be minimized or what level of emissions should be considered as "low," thereby leaving to DOER the responsibility of doing so, in the public interest and pursuant to the intent of the legislature. Since the outset of the program, DOER has worked in close consultation and cooperation with Massachusetts Department of Environmental Protection (MassDEP), the Commonwealth's lead agency in such matters. This Guideline now defines what constitutes "low emissions," solely for the purpose of RPS qualification. In addition to meeting the emission levels required by this Guideline, the RPS Regulation continues to require that the Generation Unit must be in receipt of a Valid Air Permit from the applicable agency of the jurisdiction in which the Unit is located.[6]

This Guideline provides details on the methodology and specifications by which a Generation Unit will be judged to meet the low emissions criteria, and also describes the requirements for monitoring, reporting, and enforcement of emissions standards after a Unit has been deemed RPS-qualified.

However, it is important to note that *this Guideline provides low emissions specifications only for Units that use wood-fired and other solid-fueled steam boilers.* The current version of the Guideline, in addition to providing the solid-fueled boiler specifications, describes the procedures through which DOER, in consultation with MassDEP, will determine the low-emission criteria for projects that propose to use *other* fuels or power conversion technologies.

Given the range of eligible biomass fuels and power conversion technologies, the Guideline is unable to provide "low emissions" specifications for all Units that potentially may

[5] M.G.L. Ch. 25A, Section 11F(b)(viii). See footnote 2 for on-line availability.

[6] See the definition of Valid Air Permit in the RPS Regulation at 225 CMR 14.02. Note, that if such a permit is not required in that jurisdiction or for a Unit of that size, type, or fuel, then the Regulation at 225 CMR 14.05(1)(a)6.e provides that the Unit's emission rates simply must be consistent with criteria set forth in this Guideline, a matter discussed below.

seek RPS qualification. In the meantime, DOER, with MassDEP, will review on a case-by-case basis all proposed projects *not* of the type covered in this Guideline. As a consequence of such reviews, DOER, with MassDEP, may develop specifications to cover other types of fuels and technologies. DOER will issue those specifications in subsequent revisions of this Guideline.

RPS Emission Limits for Wood-Fired and Other Solid-Fueled Steam Boilers[7]

For the sole purpose of qualifying for the MA RPS, a biomass Generation Unit using a wood-fired steam boiler or other solid fueled steam boiler must not exceed monthly average emission limits for nitrogen oxides (NOx) and particulate matter (PM) that are specified in Table One for Units of three nameplate capacity ranges.[8] It should be noted that these limits may be different, both in magnitude and in averaging period, from the limits specified in the Unit's Valid Air Permit, and that they must be separately reported to DOER on a quarterly basis.[9]

Table One

RPS Monthly Average Emission Limits
for Wood-Fired and Other Solid-Fueled Steam Boilers

Nameplate Capacity	NOx	PM	Monitoring/Testing
< 1 MW	0.30 lbs /MMBtu	0.012 lbs /MMBtu	Portable monitor for NOx, O2, & CO.[10] Initial stack test for PM,[11] NOx,[12] & CO,[13] and retest every five years.
1-10 MW	0.15 lbs /MMBtu	0.012 lbs /MMBtu	Portable monitor for NOx, O2, & CO.[14] Initial stack test for PM, NOx, & CO, and retest every three years
> 10 MW	0.065 lbs /MMBtu	0.012 lbs /MMBtu	CEMS for NOx & CO, with CO CEMS as surrogate for PM monthly average.[15] Annual stack test for PM.

[7] It must be noted that biomass-fired boilers may make incidental use of fossil fuels for the purpose of plant start-up. Any non-incidental use of ineligible fuels would require a Co-Firing with Ineligible Fuels Waiver, as provided in the Regulation at 225 CMR 14.05(3).

[8] DOER has determined in consultation with the MassDEP that these two pollutants are the two most critical ones for wood-fired boilers. Emissions of other criteria pollutants are adequately addressed in state air permits.

[9] The monitoring and reporting of these emissions, as well as their relation to the RPS qualification of GIS certificates are described in the section titled "Emissions Monitoring, Reporting, and Enforcement," below.

[10] Concentrations of CO, O2, and NOx shall be measured daily with a portable monitor that satisfies 40 CFR 60, Appendix B PS-2. The monitor shall be calibrated before use and the sample shall be taken from a location that satisfies the requirements of 40 CFR 60 Appendix A Methods 1 and 2. At least one sample shall be taken each day the boiler operates. Operation and maintenance of the monitor shall be according to the manufacturer's recommendations. CO is a surrogate limit for complying with the PM emissions limit. If the monthly average CO concentration exceeds 200 ppm @ 3% O2, the boiler will be considered to be in non-compliance with the PM emission limit. Portable monitors will be operated and maintained according to the manufacturer's recommendations.

[11] Testing for PM shall be conducted in accordance with 40 CFR 60, Appendix A, Test Method 5.

[12] Testing for NOx shall be conducted in accordance with 40 CFR 60, Appendix A, Test Method 7E.

[13] Testing for CO shall be conducted in accordance with 40 CFR 60, Appendix A, Test Method 10.

[14] Specifications are the same as in footnote 10.

In the case of a Generation Unit that has multiple boilers, the size ranges and emission limits of Table One apply to a shared smokestack. For example, if a Unit has two boiler/turbine sets of 8 MW each and they share one smokestack, the size range will be ">10 MW." If a Unit has multiple stacks, each serving one or a discrete number of boilers, then the size range and emission limit would apply to each stack separately. It is important to note that, in the case of a Unit with multiple stacks, the weighted average NOx and weighted average PM emissions from all of the stacks in the Unit must be in compliance with the RPS emission limits in order for the electricity output in a given month to qualify as New Renewable Generation and earn MA RPS qualified GIS certificates.[16] However, if a multiple stack Unit has a separate generator account at the NEPOOL GIS for each stack, then the Unit can be subdivided for the purposes of RPS low-emission compliance and GIS certificate qualification.

Over time, the emissions limits of Table One will be lowered if it is determined that more stringent limits are commercially available and economically feasible. Any changes in these limits will be announced by DOER through a revised Guideline. To accommodate the timing of the power plant development process, such changes in emissions limits will become effective twenty-four months after they are issued. The limits will apply to all units for which an administratively complete Statement of Qualification Application is received on or after that effective date and until a subsequent revision takes effect.

Review for Other Fuels and Other Types of Biomass Units

In the case of any proposed biomass Generation Unit that does *not* use a steam boiler fueled by wood or other solid fuel, DOER will consult with MassDEP by means of an interagency team to determine appropriate emission limits. Examples of such Units include but are not limited to the following:

- Boilers or engines fueled by biodiesel or bio-oil.
- Equipment fueled by biogas that is not the product of anaerobic digestion.
- Bioreactors.

The interagency team will consist of DOER's RPS staff and one or more members of MassDEP's Biomass Review Team (BRT). The BRT will meet with project developers to provide them with guidance on applicable emission limits for RPS qualification for non-solid fueled Units or for Units that do not use steam boilers. In the case of projects located within Massachusetts, the BRT will also provide guidance to applicants on MassDEP air quality permitting requirements. The BRT will provide the following types of services:

- For in-state projects, provide an expedited process for determination of Best Available Control Technology (BACT) and other aspects of MassDEP permitting;

[15] The Continuous Emissions Monitoring System (CEMS) for NOx shall satisfy either 1) 40 CFR 60, Appendix B PS-2 with the QA/QC requirements of 40 CFR 60 Appendix F or 2) 40 CFR 75, except that missing data routines and bias adjustment factors do not need to be applied. The CEMS shall be operated at all times the boiler is operating except periods of CEMS calibration checks, zero span adjustment, and preventive maintenance. Not withstanding such exceptions, in all cases the CEMS must obtain valid data for a minimum of 90% of the hours per month during which the emission unit is operating.

[16] The method for weighting will be specified in a Unit's Statement of Qualification.

- Review any project if additional guidance is needed regarding the application of already established RPS emission limits;
- Review all projects for whose fuel or technology type the RPS Guidelines do not yet specify emission limits and recommend to DOER limits appropriate for the project.

As a follow-up of the third type of service, the BRT will recommend to DOER appropriate emission limits for fuels and technology types not already covered in the RPS Guidelines. The BRT will also periodically review existing RPS emission limits and recommend to DOER reductions in these emission limits as technology improves. DOER may revise the Guideline as appropriate to incorporate such recommendations.

Review for Units that Co-fire Eligible Biomass Fuels with Ineligible Fuels

In the case of a Generation Unit that uses any Eligible Biomass Fuel(s) in conjunction with any ineligible fuel(s), whether by co-firing such fuels or by using a blended fuel, the Co-firing with Ineligible Fuels Waiver provisions at 225 CMR 14.05(3) require that the entire Generation Unit must meet the requirements of an advanced biomass power conversion technology. In addition, the emission rates for the entire Generation Unit must be shown to be consistent with rates prescribed by the MassDEP for comparably fueled Generation Units, in other words, for units that it has approved, or would approve, in Massachusetts. Thus, the rates set forth in Table One do not apply for such plants. Finally, DOER may require the Generation Unit Owner or Operator to retain at its own expense a third-party consultant deemed satisfactory to DOER (in consultation with MassDEP), to provide DOER and MassDEP with assistance in this determination.

State Air Permitting of Biomass Generation Units

In order to qualify as a New Renewable Generation Unit, a biomass-fueled Unit must receive a Valid Air Permit from the applicable environmental agency of the jurisdiction in which the Unit is or will be located.[17] The RPS Regulation at 225 CMR 14.02 defines Valid Air Permit as follows:

> Valid Air Permit. Within the United States, a current and effective authorization, license, certificate, or like approval to construct and/or operate a source of air pollution, issued or required by the regulatory agency designated in the applicable State Implementation Plan to issue permits under the Clean Air Act, 42 U.S.C. §§ 7401, et seq., as amended. In jurisdictions outside of the United States, it shall be a document demonstrating an equivalent authorization.

The pollutants covered and the emission standards in such permits may differ from the RPS emission limits. The MA RPS low-emission criteria pertain only to the RPS qualification of the Unit and of the conditions governing the RPS qualification of its electricity output. They in no way replace the air emission obligations required by the regulatory agency that has jurisdiction where an RPS-qualified Unit is located.

For Generation Units located in Massachusetts, MassDEP has established a set of emissions limits that it suggests as the starting point for BACT for wood-fired boilers within given size ranges. MassDEP will post those limits as guidance at its own website and may revise

[17] The exception is noted in footnote 6.

or supplement them from time to time.[18] MassDEP will determine the effective dates of any changes that it makes in its BACT guidelines and procedures.

For Generation Units *not* located in Massachusetts, applicants must provide proof of receipt of a Valid Air Permit from the applicable regulatory agency. If such Valid Air Permit has not yet been obtained by the applicant and provided to DOER by the time the Statement of Qualification Application review has been successfully completed, DOER may, in its sole discretion, issue a Statement of Qualification in which providing DOER with a copy of its Valid Air Permit is a condition of the RPS qualification.

Emissions Monitoring, Reporting, and Enforcement[19]

For any solid biomass-fueled Generation Unit with a smokestack serving one or more steam boilers and generation equipment whose total nameplate capacities are greater than 10 MW, NOx emissions shall be monitored with a Continuous Emissions Monitoring System (CEMS) that satisfies either 40 CFR 60 Appendix B PS-2 (with the QA/QC requirements of 40 CFR 60 Appendix F) or 40 CFR 75, except that missing data routines and bias adjustment factors do not need to be applied. The NOx CEMS shall be operated at all times that the boiler is operating except during periods of CEMS calibration checks, zero span adjustment, and preventive maintenance. Not withstanding such exceptions, in all cases the CEMS must provide valid data for a minimum of 90% of the hours per month during which the Unit is operating. A CO CEMS also shall be used, and average monthly CO concentration will provide a surrogate limit for PM. If the combined monthly average CO concentration from all of the stacks in the Unit exceeds 200 ppm @ 3% O2, the Unit shall be considered to be in non-compliance with the PM emission limit. In addition, an annual stack test shall be required for PM.

For any solid biomass-fueled Generation Unit with a smokestack serving one or more steam boilers and generation equipment whose total nameplate capacities are 10 MW or less, concentrations of NOx, CO, and O2 shall be measured daily with a portable monitor. The portable monitor shall satisfy 40 CFR 60, Appendix B PS-2. The monitor shall be calibrated before use, and the sample shall be taken from a location that satisfies the requirements of 40 CFR 60 Appendix A Methods 1 and 2. At least one sample shall be taken each day the boiler operates. Operation and maintenance of the monitor shall be according to the manufacturer's recommendations. The monthly average CO concentration will provide a surrogate limit for complying with the PM emissions limit. If the combined monthly average CO concentration from all of the stacks in the Unit exceeds 200 ppm @ 3% O2, the Unit shall be considered to be in non-compliance with the PM emission limit.

For a Unit below one MW nameplate capacity, an initial stack test shall be performed for PM, NOx, and CO, with a retest every five years. For a Unit with a nameplate capacity of one through 10 MW, an initial stack test shall be performed for PM, NOx, and CO, with a retest every three years.

[18] The MassDEP website is at http://www.mass.gov/dep/.

[19] To the extent deemed necessary, additional protocols and procedures beyond those described in this section will be included in a Unit's Statement of Qualification and may be incorporated in subsequent revision of this Guideline. This type of revision in the Guideline would not have a 24-month delay in its effectiveness.

For any biomass Unit that does not use a solid-fueled steam boiler, NOx and PM emission limits, monitoring, and reporting shall be established by a DOER/DEP interagency team and specified in the Unit's Statements of Qualification.

The Owner, Operator or authorized agent of a biomass Generation Unit shall submit to DOER, with a copy to MassDEP (*and* to its own regulatory agency, if not located in Massachusetts), the following reports and other documentation per the timetable noted or immediately upon their availability:

- MA RPS Quarterly Low-Emission Report scheduled as specified in Table Two (below). Each such report shall include a cover letter that states what is attached, summarizes the emission and compliance information derived from the Unit's CEMS and/or portable monitors (including the monthly average for each stack and the average for all stacks), and the certification required in the RPS Regulation at 225 CMR 14.10(1). The certification shall be stated to cover both the information in the cover letter and in the electronic documentation. The date and *summary* result of the most recent, RPS-required stack test shall be included with each quarterly report. The cover letter shall be sent to DOER and MassDEP, and documentation for the information summarized in the cover letter shall be provided *only* on a compact disk sent to DOER and MassDEP, except for stack test data, which shall be provided as described below.
- Whenever a new, RPS-required stack test occurs and is reported to the Unit's own regulatory agency, a copy to DOER and MassDEP of a *summary* of the results. In the case of a stack test conducted to satisfy only the requirements of MA RPS and not those of the Unit's own regulatory agency, the entire report specified in the Unit's Statement of Qualification must be sent to DOER and MassDEP on a compact disk along with a summary. A summary of that report shall be sent as hard copy to both DOER and MassDEP and must include the certification required in the RPS Regulation at 225 CMR 14.10(1). The certification shall be stated to cover both the information in the cover letter and in the electronic documentation. The date and results of each such stack test (but not documentation previously submitted) also shall be included in each MA RPS Quarterly Low-Emission Report until superseded by the results of a later stack test.
- Notification to DOER of any enforcement action by the applicable environmental agency, as required in the RPS Regulation at 225 CMR 14.06(5), since such action may affect the RPS qualification of the Unit.

Table Two

Schedule for MA RPS Quarterly Low-Emission Reports

Quarter	Months Reported	Report Due to DOER
1	Jan, Feb, Mar	April 30
2	Apr, May, Jun	July 30
3	Jul, Aug, Sep	October 31
4	Oct, Nov, Dec	January 31

For any calendar month during which the reported monthly average emissions level for NOx or PM exceeds its RPS emissions limit[20] or is found to be in non-compliance with any provisions of its Statement of Qualification, the Unit's Owner, Operator, or authorized agent will be in non-compliance with the requirements of 225 CMR 14.00 and shall be subject to the provisions of 225 CMR 14.12. In addition, DOER will take appropriate action through the NEPOOL GIS to assure that the electricity output of the Generation Unit during the month of non-compliance will not have MA RPS New Renewable Generation Attributes and, thereby, will not receive MA RPS-qualified GIS Certificates.

For any calendar month during which a required, periodic PM stack test of the Unit reveals exceedance of the RPS PM emission limit, the Unit's Owner, Operator, or authorized agent will be in non-compliance with the requirements of 225 CMR 14.00 and shall be subject to the provisions of 225 CMR 14.12. In addition, DOER will take appropriate action through the NEPOOL GIS to assure that the electricity output of the Generation Unit during the month of non-compliance will not have MA RPS New Renewable Generation Attributes and, thereby, will not receive MA RPS-qualified GIS Certificates. RPS qualification of the output from the Unit will resume as of the first complete month after a subsequent stack test demonstrates RPS compliance.[21]

In order to return to RPS compliance, the Unit's Owner, Operator or authorized agent must demonstrate to the satisfaction of DOER that the emission limits are again being met. In the case of a Unit that has been in non-compliance for a period of three months, such demonstration must include a report in which an Authorized Representative of the Owner, Operator or authorized agent describes and certifies the reasons for the exceedance and of actions taken to restore the Unit's operation to compliance with the low-emission conditions of its Statement of Qualification, including or followed by documentation satisfactory to DOER of such restored compliance. Documentation must include a quarterly MA RPS Low-Emission Report and/or PM stack test results.

It is important to note that, if a Generation Unit has more than one smokestack, and the emissions from each are controlled, monitored and reported separately, but the Unit has a single generator account with the NEPOOL GIS, the weighted average NOx and the weighted average PM emissions[22] from all of the stacks in the Unit combined must be in compliance with the RPS emission limits in order for the electricity output in a given month to qualify as New Renewable Generation and earn MA RPS qualified GIS certificates.[23]

[20] In the case of PM, this would apply in the case of an exceedance of the surrogate CO limit.

[21] DOER understands that, in limited circumstances, the GIS Administrator could encode GIS certificates as RPS-qualified as of the day following a successful PM stack test, as requested by DOER. However, such immediate qualification is subject to the ability of the GIS and of the GIS Administrator. Otherwise, RPS qualification would resume as of the month following the successful stack test. The above notwithstanding, in the case of an unsuccessful stack test and a subsequent successful stack test both in the same month, RPS qualification will resume as of the following month unless the Owner, Operator or authorized agent or Operator of the Unit can demonstrate to the satisfaction of DOER that the first test was an anomaly.

[22] The method for weighting will be specified in a Unit's Statement of Qualification..

[23] As noted earlier, if a multiple stack Unit has a separate generator account at the NEPOOL GIS for each stack, then the Unit can be subdivided for the purposes of RPS low-emission compliance and GIS certificate qualification.

Possession of a Valid Air Permit is a threshold eligibility criterion for RPS qualification (except when such permit is not required by the applicable agency). DOER recognizes that minor or short term violations of applicable permit conditions and environmental regulations may occur from time to time, and such violations will not necessarily affect continued qualification of a Unit as an RPS Qualified Generation Unit. However, DOER, in consultation with MassDEP, may review reports of enforcement actions by applicable environmental agencies, and DOER may find a Unit's Owner, Operator or authorized agent in non-compliance with the requirements of 225 CMR 14.00. In case of such a finding, they shall be subject to the provisions of 225 CMR 14.12. Suspension or revocation of a Unit's Valid Air Permit will result in DOER's suspension of the Unit's qualification or other action that DOER deems appropriate under the provisions of 225 CMR 14.12.

Low Emission Criteria for Units That Do *Not* Require Valid Air Permits[24]

If a biomass-fueled Generation Unit located outside Massachusetts does not require a preconstruction air permit, and if the fuel, technology type, and size of the Unit are such that the Unit would, if located in Massachusetts, require an air plan approval or some other form of Valid Air Permit, then the following criteria shall apply *solely* for MA RPS qualification:

- If the Unit uses a wood-fired or other solid-fueled steam boiler, then the emission limits of Table One, above, will apply, along with the monitoring, reporting, and enforcement conditions described above.
- If the Unit is of a type, fuel, and size that it would, if located in Massachusetts be governed by MassDEP's Engine and Combustion Turbine Regulation at 310 CMR 7.00 et seq. and 310 CMR 70.00, then the fuel and emission limit provisions of those regulations would apply.
- All other Units that are of a fuel and size that would necessitate, if located in Massachusetts, a Valid Air Permit, but that would neither use a solid biomass-fired steam boiler nor be governed by MassDEP's Engine and Combustion Turbine Regulation, shall be evaluated as to air emissions by the BRT procedure described above.

If a biomass-fueled Generation Unit does not require an air permit because its size is *below the threshold* for regulations that would otherwise apply in either its own jurisdiction or in Massachusetts, then DOER will undertake a case-by-case review, as follows. DOER will determine if the Unit meets the Advanced Biomass Power Generation Technology criterion. If the Unit does meet that criterion, DOER may consult with MassDEP to determine whether the Unit would raise any air quality concerns for MassDEP. After such consultation, DOER may decide that the Unit qualifies as meeting the low-emissions standard either with or without any emission limitation conditions being included in its Statement of Qualification.[25]

[24] See 225 CMR 14.05(1)(a)6.e.

[25] DOER may issue further guidance pertaining to small Units in subsequent revisions of the Guideline.

Low Emissions and New Unit Start-Up[26]

When a new biomass Generation Unit begins to generate electricity using Eligible Biomass Fuel(s), its output will qualify as New Renewable Generation only *after* it demonstrates to the satisfaction of DOER, in consultation with MassDEP, that the Unit is meeting the low emission conditions in its Statement of Qualification.[27] DOER will deem those limits to have been met when all of the following conditions have been met:

1. If a CEMS is required for the Unit, the NOx CEMS has been certified in the manner specified in its pre-construction air permit, other Valid Air Permit, or Statement of Qualification.
2. If, for the month in which a required CEMS has been duly certified or required portable monitor use has commenced, the NOx emissions averaged over the remainder of that calendar month do not exceed the NOx limit, beginning the day after the CEMS has been duly certified or portable monitor use has commenced.
3. If the most recent stack test, if required, demonstrates compliance with the PM limit.

When DOER is satisfied that all three of those conditions have been met, DOER will designate as the RPS Effective Date the later of (a) the day after the successful stack test, or (b) the day after CEMS certification, or (c) the day after commencement of portable monitor use. GIS Certificates created for electricity output as of the Unit's RPS Effective Date will be encoded as MA RPS-qualified New Renewable Generation and will continue to be encoded as such so long as the Unit's emission limits and other conditions of the Unit's Statement of Qualification continue to be met.[28]

DOER may, at its discretion and in consultation with MassDEP, provide for and include in a Unit's Statement of Qualification a limited optimization period. During an optimization period, the electricity output from a Unit would qualify as New Renewable Generation if it meets a specified, less stringent limit for one or both of the two pollutants. In the case of a Unit with an optimization period, the RPS Effective Date for the optimization period would commence as described in the previous paragraph and would continue until *either* of the following two conditions is reached:

1. The optimization period reaches the time limit provided in the Statement of Qualification, after which the output will not be qualified as New Renewable Generation unless and until compliance with the final limits specified in its Statement of Qualification is demonstrated in the manner described in the previous paragraph.
2. The emissions of the two pollutants are in compliance with final limits provided in the Statement of Qualification. DOER will deem those limits to have been met when the

[26] This section pertains to all Units with steam boilers. In the case of all other types of Units, the provisions pertaining to low emissions and new Unit start-up will be specified in the Unit's Statement of Qualification.

[27] In the case of a new Unit designed to burn either an ineligible fuel *or* an Eligible Biomass Fuel, and where sole use of an Eligible Biomass Fuel follows the end of start-up and testing of the Unit with the ineligible fuel, then the averaging of monthly emissions and the compliance with any other RPS emissions requirements will commence when the use of the ineligible fuel ends and sole use of the Eligible Biomass Fuel begins.

[28] Such encoding of GIS certificates shall be done by a procedure to be agreed upon between the GIS Administrator and DOER and shall be communicated to Unit Owner, Operator or authorized agent as appropriate.

NOx emissions averaged over one complete calendar month do not exceed the NOx limit, and the most recent certified stack test demonstrates compliance with the PM limit.

In the case of a Generation Unit that does not require CEMS or portable monitoring of NOx or stack testing of PM, the qualification and initial encoding of GIS Certificates as New Renewable Generation shall be done as specified in the Unit's Statement of Qualification.